GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

UNSTARRED QUESTION NO:4945
ANSWERED ON:19.04.2001
NEW TECHNOLOGY
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Will the Minister of AGRICULTURE be pleased to state:

(a) whether the Directorate of Wheat Research (DWR) has developed for farmers Zero tillage Machines and Furrow Irrigated Raised Bed (FIRB) planting, to reap rich harvest;

(b) if so, the facts thereof;

(c) its advantages over traditional ploughing; and

(d) the action proposed to propagate the new technologies in various parts of the country and particularly in Haryana?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. DEBENDRA PRADHAN)

(a) & (b): The zero tillage machine originally developed by the Pantnagar University for the wheat programme in 1993 was tested under the Frontline Demonstration (FLD) Programme since 1994 by Directorate of Wheat Research (DWR). Further improvements in the design were made and most satisfactory results were obtained. Following this, the Ministry of Agriculture, Govt. of India came out with a scheme to popularise it in wheat growing states through FLDs. The machine is tractor driven and can be locally fabricated at an approximate cost of Rs. 13,000.

The Furrow Irrigated Raised Bed (FIRB) machine was developed by the Directorate of Wheat Research, Karnal and Punjab Agricultural University, Ludhiana which was modified/improved later on over the years and being popularized under the FLD(s).

(c) Under the rice-wheat cropping system, Zero Tillage helps in advancing sowing of wheat crop, consequently the yield losses due to late sowing are reduced. It also saves fuel, money and time in comparison to conventional tillage. It saves about Rs. 1200 in tillage operations.

FIRB helps in efficient input usage such as water and nutrients. In wheat crop, a saving of more than 25 percent has been observed in seed and nitrogen fertiliser. The water saving can be 10 to 40 percent depending upon the soil type.

(d) It is proposed to propogate this new technology through demonstrations. The process has already been started. To demonstrate and propogate these technologies, more than 200 zero tillage machines were supplied to different centres. Frontline demonstrations were conducted in farmers fields during 1998-99 and 1999-2000 in various parts of country including Haryana. FIRB Technology is also getting popular in Punjab, Haryana, Western Uttar Pradesh and Rajasthan.